



Complete Summary

TITLE

Venous thromboembolism (VTE): percentage of adult patients suspected of deep vein thrombosis (DVT) who have leg duplex ultrasound with compression performed despite a low clinical pretest probability and a negative D-dimer test.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Venous thromboembolism. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 Feb. 91 p. [202 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of adult patients suspected of deep vein thrombosis (DVT) who have leg duplex ultrasound with compression performed despite a low clinical pretest probability and a negative D-dimer test.

RATIONALE

The priority aim addressed by this measure is to improve quality of care and cost-effectiveness of the diagnosis and treatment of venous thromboembolism (VTE).

PRIMARY CLINICAL COMPONENT

Venous thromboembolism (VTE); deep vein thrombosis (DVT); duplex ultrasound with compression; low clinical pretest probability; D-dimer test

DENOMINATOR DESCRIPTION

Total number of adult patients suspected of deep vein thrombosis (DVT) who have a low clinical pretest probability and a negative D-dimer test (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Total number of adult patients suspected of deep vein thrombosis (DVT) who have a low clinical pretest probability and a negative D-dimer test who undergo a leg duplex ultrasound with compression

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Venous thromboembolism.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Group Clinical Practices

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Adults 18 years and older evaluated for possible deep vein thrombosis (DVT)

A list of all adult patients evaluated for DVT during the previous target period. The medical records can be reviewed to determine the documentation of a low clinical pretest probability, negative D-dimer test and the performance of a leg duplex ultrasound with compression

Data may be collected semiannually.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Total number of adult patients suspected of deep vein thrombosis (DVT) who have a low clinical pretest probability* and a negative D-dimer test

*Wells Model of Clinical Pretest Probability of DVT

- Active Cancer (current treatment or treated within the last 6 months, or palliative) -- 1 point
- Paralysis, paresis, or recent plaster immobilization of lower extremity -- 1 point
- Recently bedridden for more than 3 days or major surgery within 4 weeks -- 1 point
- Localized tenderness along the distribution of the deep venous system -- 1 point
- Entire leg swollen -- 1 point
- Calf swollen by more than 3 cm when compared to asymptomatic leg (measured 10 cm below the tibial tuberosity) -- 1 point
- Pitting edema (greater in the symptomatic leg) -- 1 point
- Collateral superficial veins (non-varicose) -- 1 point
- Alternative diagnosis as likely or greater than that of deep vein thrombosis -- -2 points

Scoring

If both legs are symptomatic, score the more severe side

- High risk scored 3 or more

- Moderate risk scored 1-2
- Low risk scored 0 or less

Exclusions
Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Diagnostic Evaluation

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Total number of adult patients suspected of deep vein thrombosis (DVT) who have a low clinical pretest probability and a negative D-dimer test who undergo a leg duplex ultrasound with compression

Exclusions
Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a lower score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Percentage of adult patients suspected of DVT who have leg duplex ultrasound with compression performed despite a low clinical pretest probability and a negative D-dimer test.

MEASURE COLLECTION

[Venous Thromboembolism Measures](#)

DEVELOPER

Institute for Clinical Systems Improvement

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Feb

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Venous thromboembolism. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 Feb. 91 p. [202 references]

MEASURE AVAILABILITY

The individual measure, "Percentage of adult patients suspected of DVT who have leg duplex ultrasound with compression performed despite a low clinical pretest probability and a negative D-dimer test," is published in "Health Care Guideline: Venous Thromboembolism." This document is available from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#).

For more information, contact ICSI at, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; phone: 952-814-7060; fax: 952-858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

NQMC STATUS

This NQMC summary was completed by ECRI on May 1, 2006.

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